

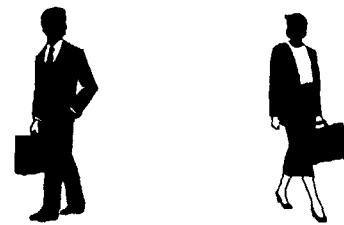
Two sets of quantitative telephone surveys were used in market assessment activities:

**Quantitative Telephone Surveys
Among Corporate Buyers**



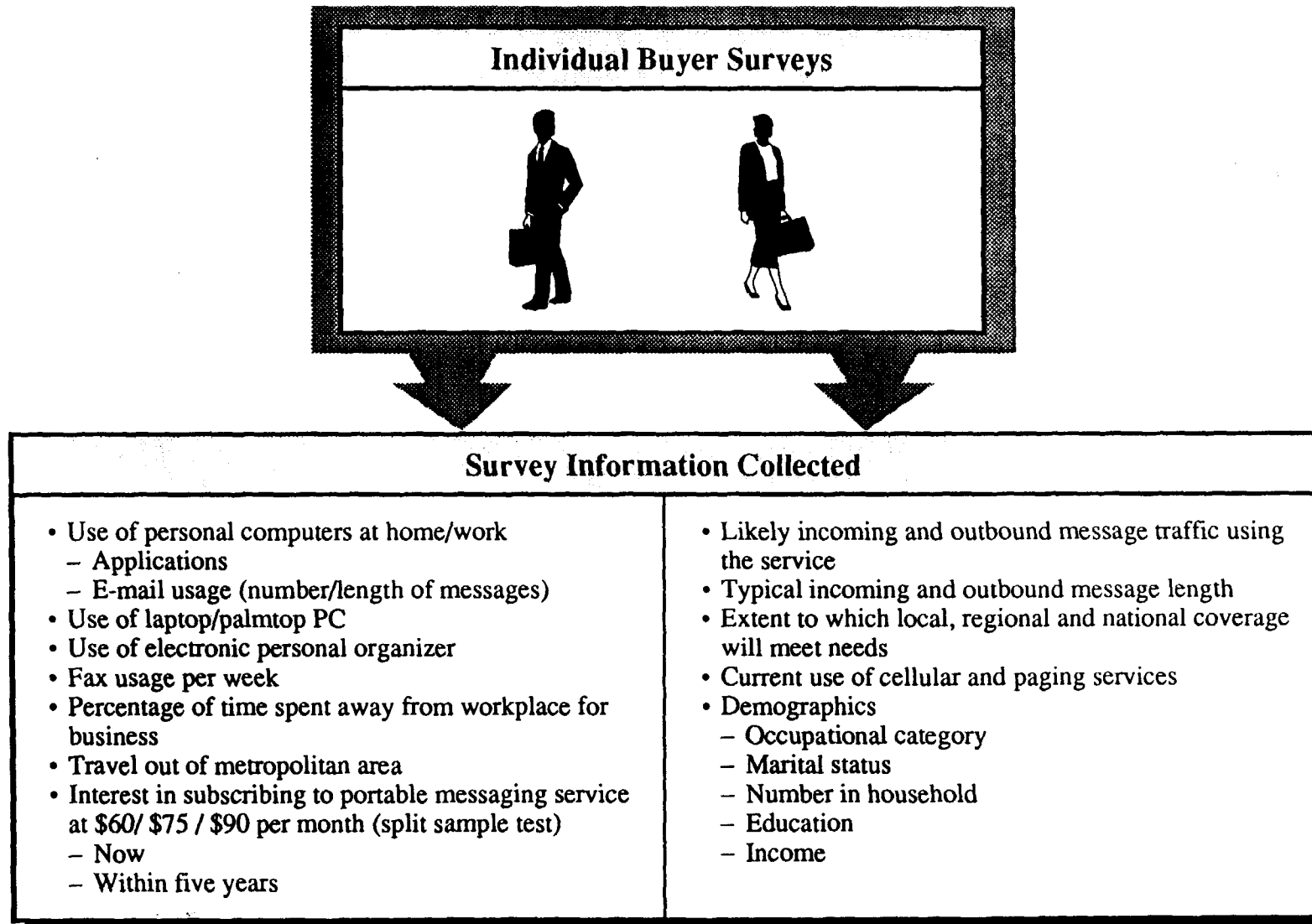
- A representative sample of 401 headquarters of firms sampled nationwide
- Respondent was involved in centralized purchasing
- Minimum number of employees was 100 per firm
- Sample was stratified on the basis of the number of employees
 - 20% had more than 1,000 employees
 - 30% had between 250 and 999 employees
 - 50% had 249 or less employees

**Quantitative Telephone Surveys
Among Individual Buyers**

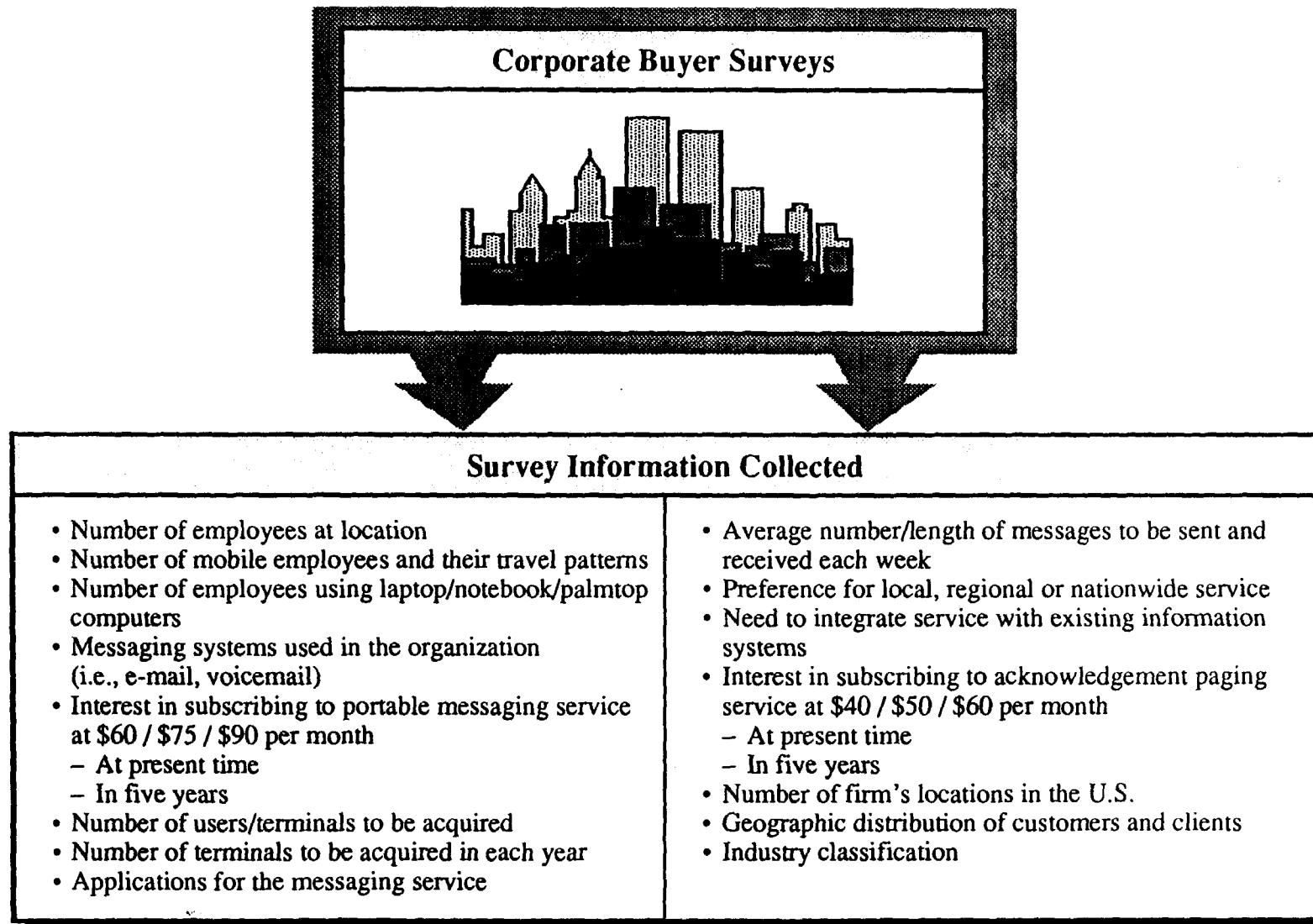


- 800 households were randomly sampled nationwide
- Respondent was an adult who was queried about business use of NWN and acknowledgement messaging
- Random digit dialing was used to ensure statistically accurate sample coverage
- Sample was stratified on the basis of income
- Results were statistically weighted to provide projectable picture of results

Approach Information Collected in Individual Buyer Surveys



Approach Information Collected in Corporate Buyer Surveys



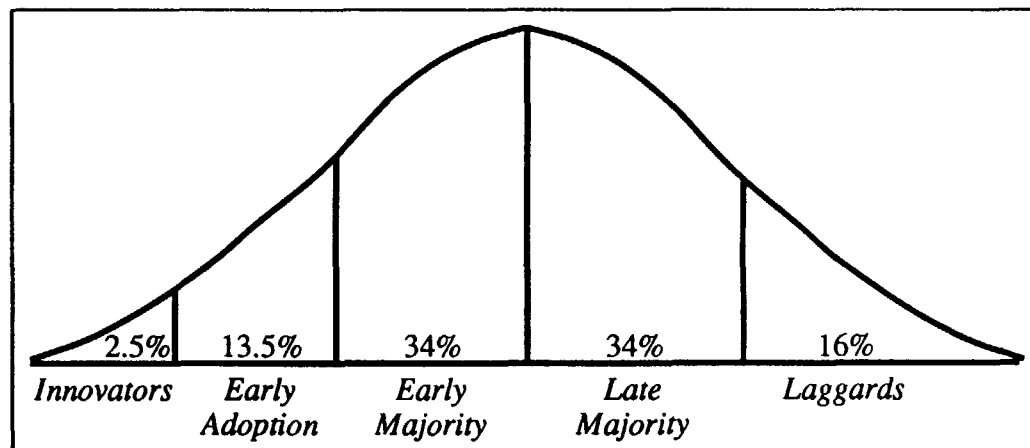
Overview of Findings

Household survey findings are representative of the population of the U.S. workforce – the centralized corporate buying survey is representative of all firms with 100 or more employees (29,000 firms and nearly 40 million employees) – these surveys reflect:

- 1. Demand for NWN Offerings**
- 2. Message Traffic and Message Length Requirements**
- 3. Preference for Nationwide Coverage**
- 4. Relationship of NWN to Acknowledgement Messaging**

To forecast demand for NWN, we used an adoption model developed by Frank Bass to predict purchase of new products

- The model was rooted in early literature on diffusion of innovation in agricultural settings
- The underlying principle is that the adoption curve follows a consistent path which varies as a function of time
- Models have successfully been applied to a variety of consumer and industrial products
 - CB radios
 - Cellular telephones
 - Electric refrigerators
 - Air conditioners
 - Color TV sets



Surveys of individual buyers assumed that no more than one NWN subscription would be acquired in each household surveyed (this is a conservative assumption because only one worker per household was assumed to adopt the service)

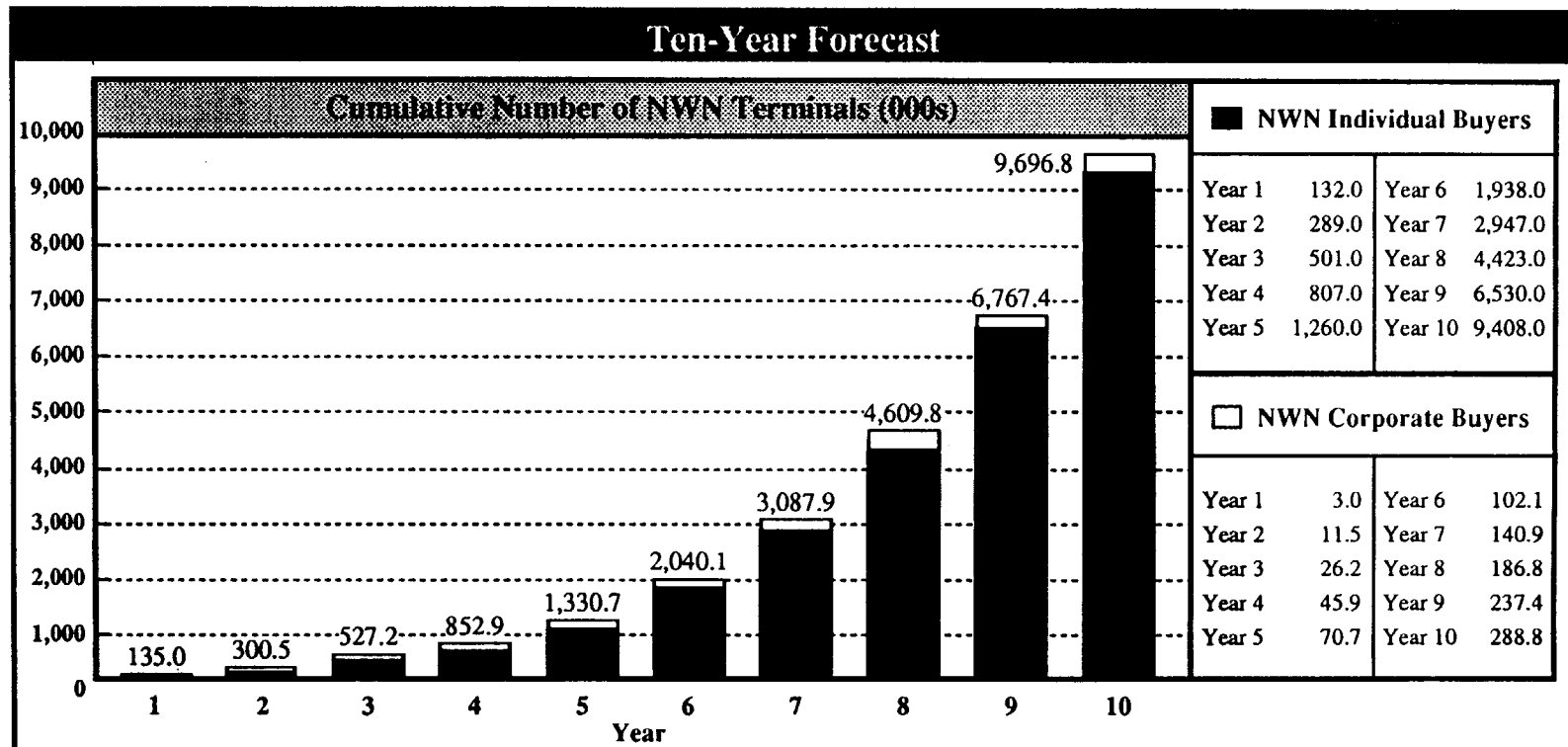
The pricing of NWN service was an average of \$75 per month plus equipment costs *

Centralized corporate decisionmakers will acquire multiple units (they evidenced an average of 30 subscriptions per firm) over a multi-year period

* Survey did not assume that individuals would pay for the service in its entirety – like cellular, it may be assumed that individuals expect to pay part and have their business pay part of the bill

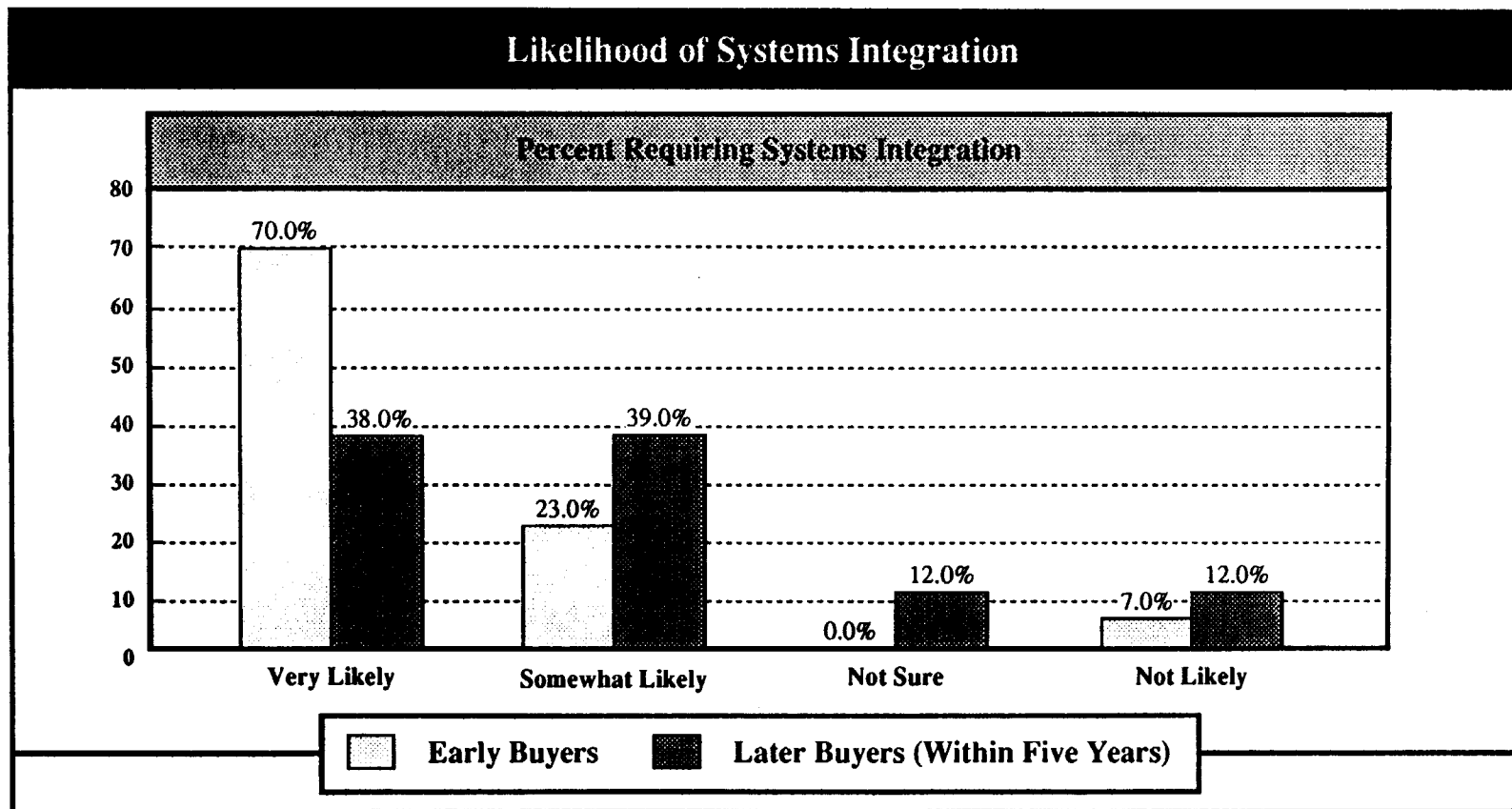
Demand for NWN Offerings Demand for NWN Subscriptions

We estimate that NWN subscriptions will be adopted by over 1.3 million users in the first five years and nearly ten million after ten years of service (assuming 300 market rollout)



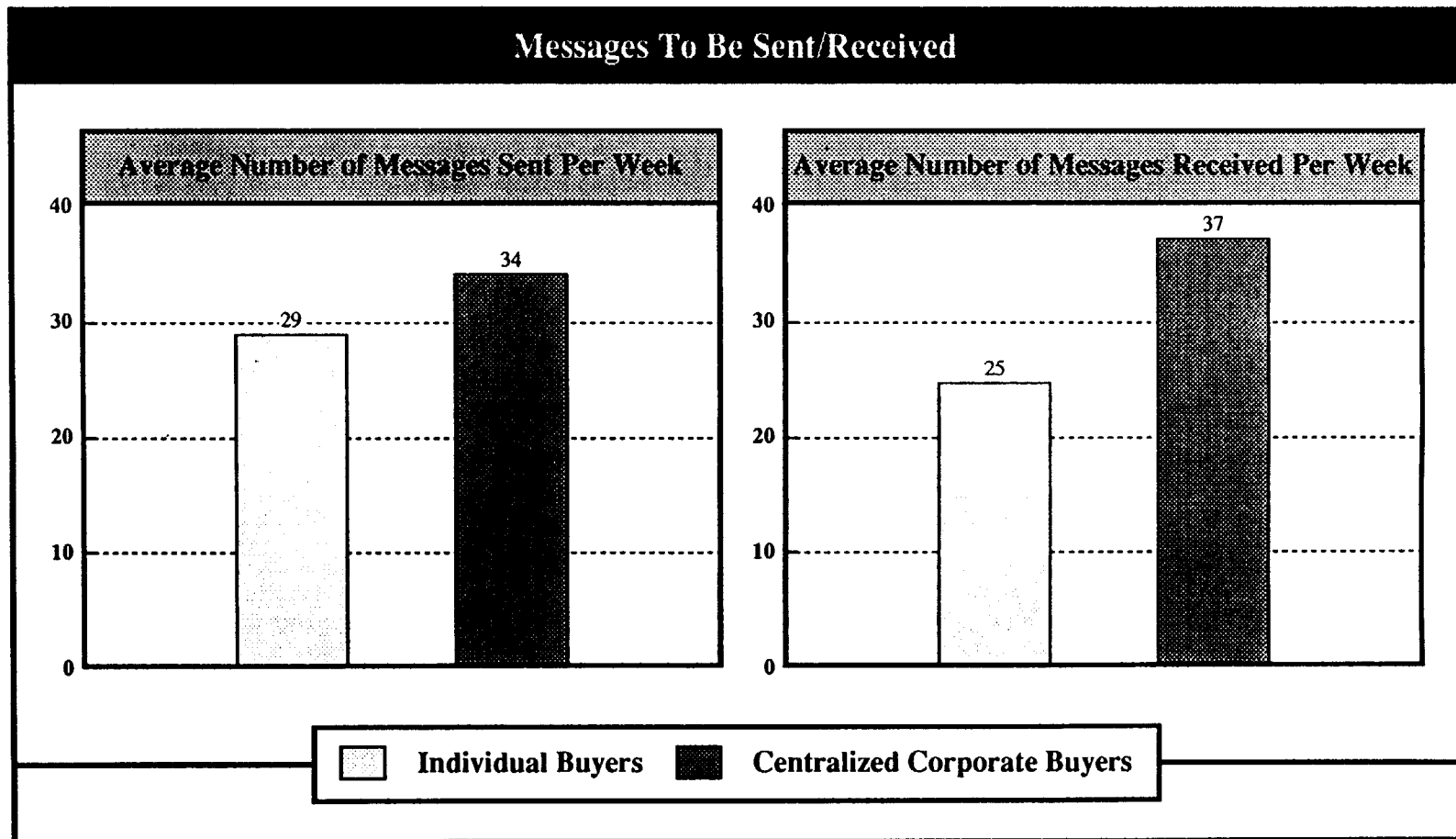
The individual buyer market is considerably larger than is the market controlled by centralized corporate decisionmakers – this is consistent with adoption patterns observed in cellular and nationwide paging services

Survey data support the notion that early centralized corporate buyers of NWN have a high likelihood of needing to integrate the service with existing information systems



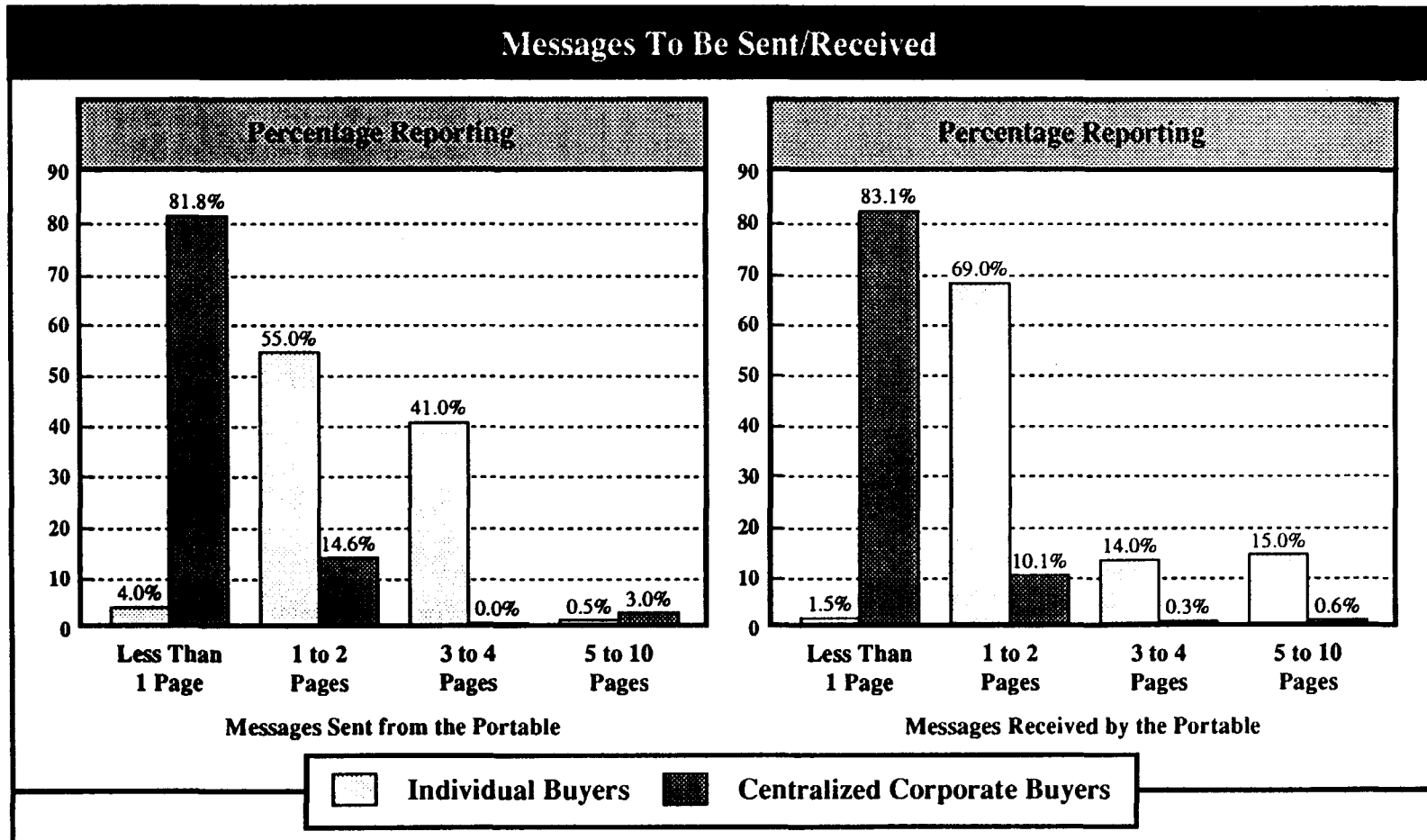
This may explain why centralized corporate buyers tend to lag the adoption rate forecast for individual buyers

Expectation of number of messages is an average of over five messages to be sent from the portable and five messages to be received using the portable each work day



Centralized corporate buyers expect somewhat heavier traffic

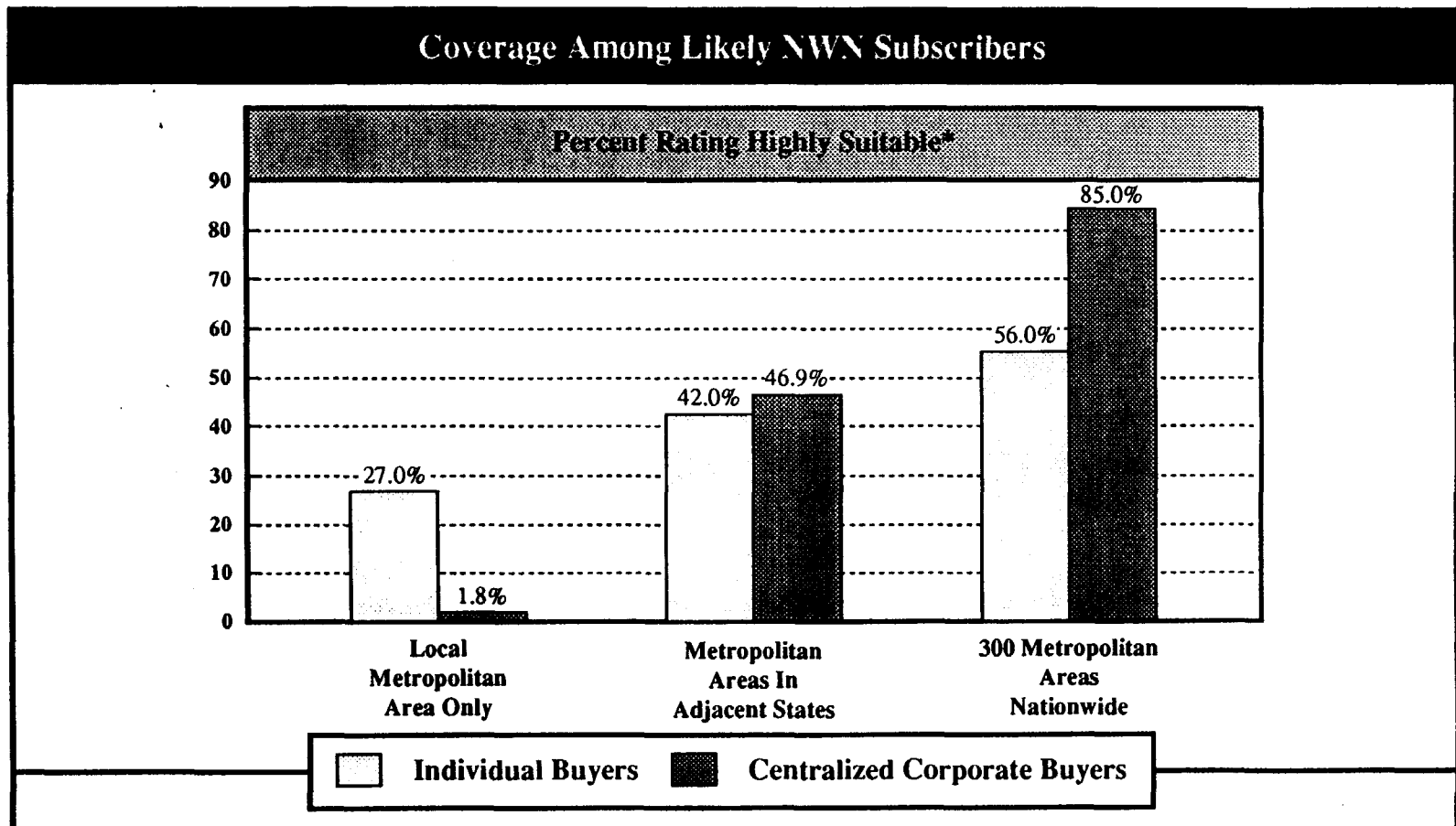
Prospective users anticipate sending and receiving relatively short messages using the portables



Centralized corporate buyers anticipate that the bulk of their requirement is for particularly short messages under one page

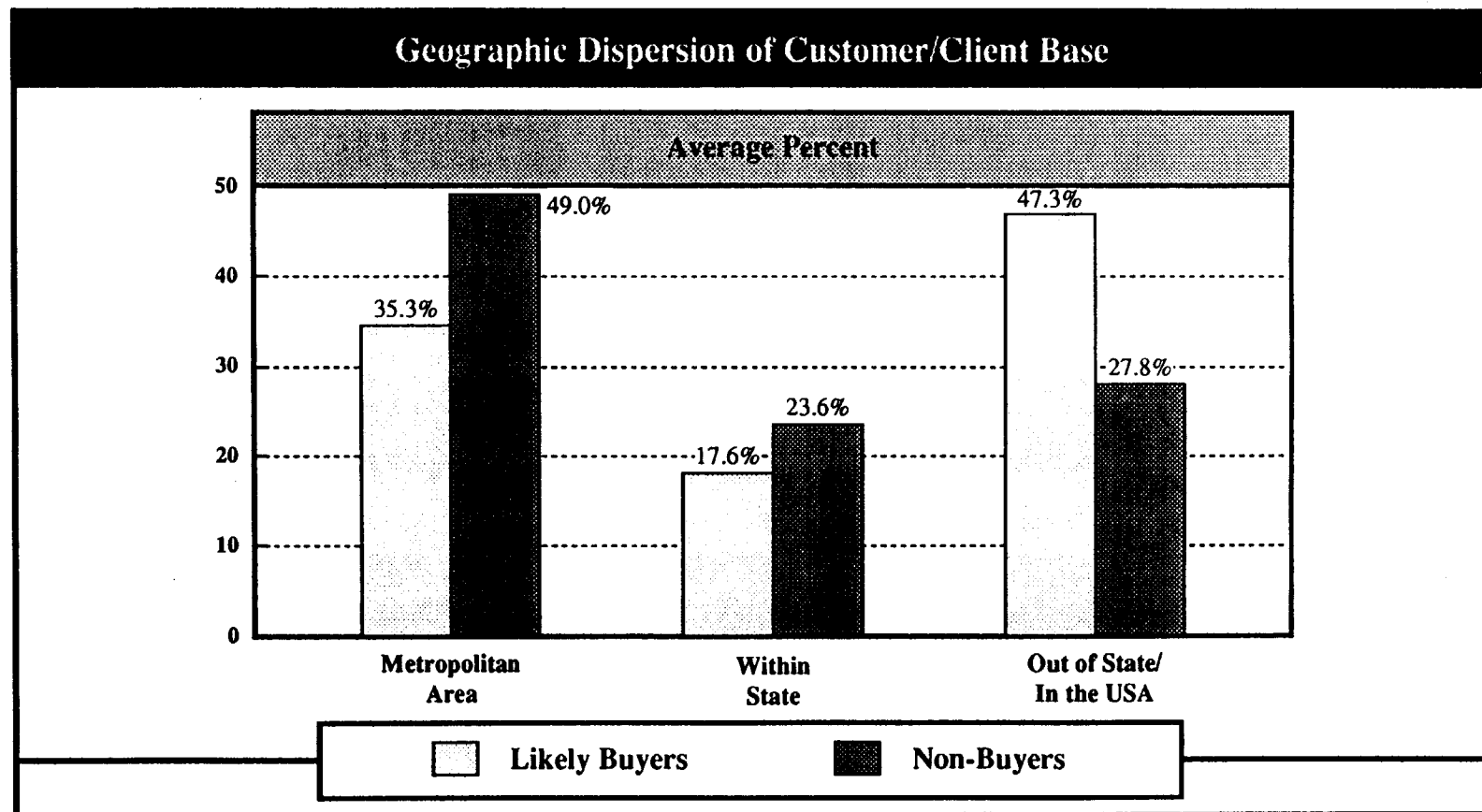
Preference for Nationwide Coverage Individual and Corporate Buyers

Nationwide coverage is preferred at a statistically significant level among potential adopters of NWN



* Ratings of eight, nine or ten on a ten-point scale

Analysis of survey data indicates that likely buyers of NWN service tend to have broad geographic dispersion of customers relative to the customer distribution of non-buyers



Relationship of NWN to Acknowledgement Messaging

In order to examine the relationship of NWN to a less sophisticated two-way messaging service (acknowledgement messaging), data from two other Arthur D. Little surveys were used to supplement the corporate survey:

- A survey of 1,000 households which focused on demand for acknowledgement messaging among individuals who did not currently use pagers
- A random survey of 600 current paging users

In this analysis, it was assumed that NWN was designed to provide two-way messaging with messages of varying lengths

Acknowledgement messaging was assumed to be provided by the same platform as NWN and to involve brief acknowledgement messages notifying the sender of message receipt or a brief coded response

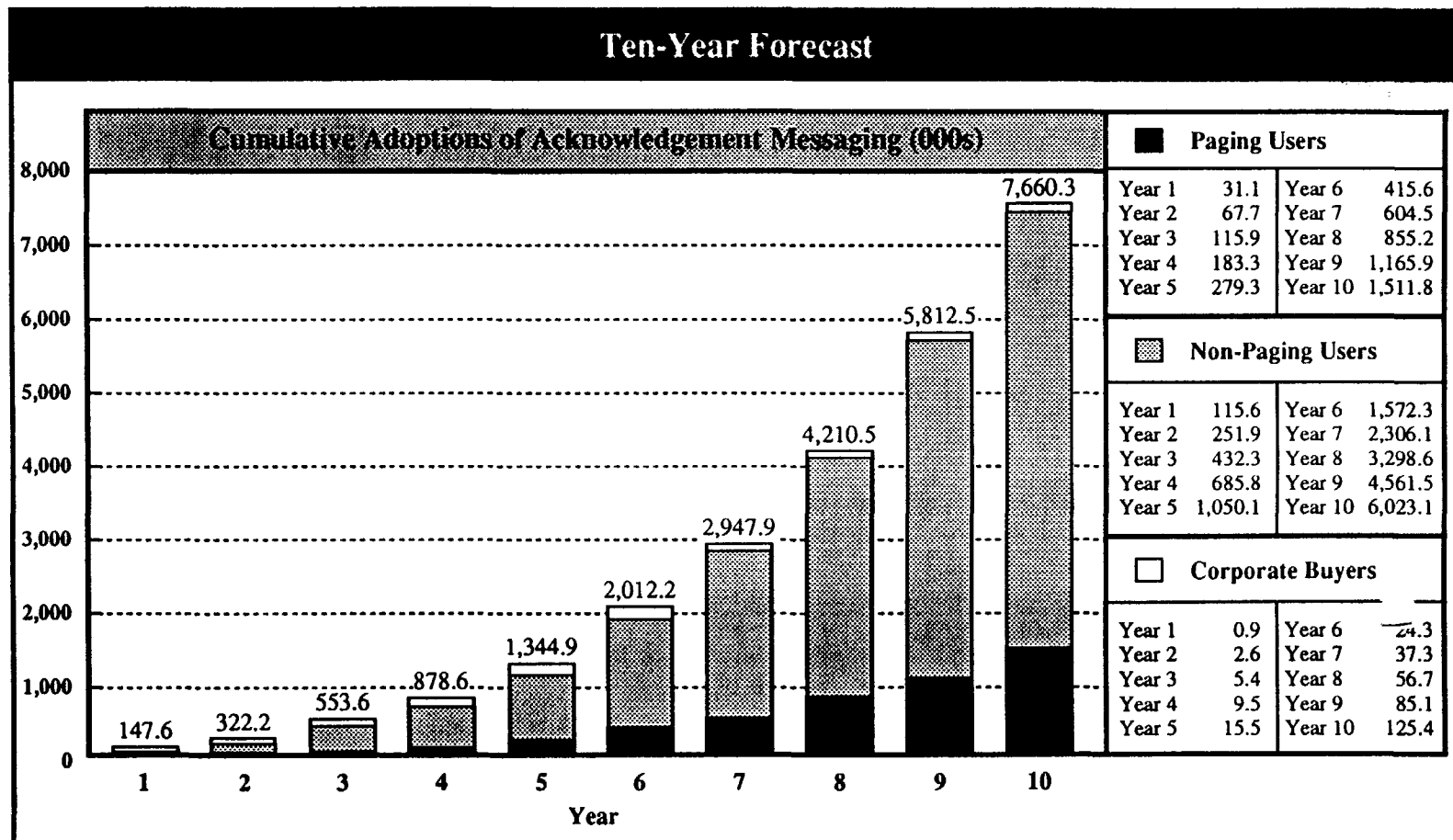
Estimates for the acknowledgement messaging market were also developed using the Bass curve methodology

Key assumptions in this analysis included the following:

- No more than one acknowledgement messaging subscription per household
- The price of service ranged from \$40 per month to \$50 per month including messages, but excluding paging terminal costs
- Centralized corporate decisionmakers were assumed to acquire multiple units over a multi-year period

Relationship of NWN to Acknowledgement Messaging Demand

Demand for acknowledgement messaging is also quite large, but falls below NWN demand in the “out” years (Years 9 and 10)



The individual market far exceeds the centralized corporate market for this offering

Implications

A number of implications may be drawn from these findings:

- 1. The markets for NWN and for acknowledgement messaging are quite sizeable in both the near-term (five years) and after ten years of service**
- 2. Individual buyers will dominate demand for NWN offerings – this is probably due, in part, to systems integration requirements in larger firms**
- 3. Marketing and distribution efforts should be focused first on developing the market for NWN among individual buyers**
- 4. Findings from both individual surveys and corporate surveys support the notion that users require relatively short messages**
- 5. Corporate buyers anticipate shorter messages, but greater message traffic than individual buyers**
- 6. Analysis of buyer preference for nationwide, regional and local NWN offerings suggests substantial preference for nationwide offerings – this preference is found among both individual and corporate buyers, but is more pronounced in the corporate sector**